
OPERATION AND MAINTENANCE PLAN

HAVERHILL LANDFILL NORTHERN MOUND

**OLD GROVELAND ROAD
(ASSESSOR'S PARCEL 776-788-27)
HAVERHILL, MASSACHUSETTS**

Prepared for: **Langdon Environmental LLC**
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OPERATION AND MAINTENANCE PLAN
September 10, 2024

Name of Owner:

Name of Facility: **Haverhill Landfill, Northern Mound**

Location: **Old Groveland Road, Haverhill, Massachusetts**
(Assessor's Parcel 776-788-27)

A detailed, written log of all scheduled preventative and corrective maintenance performed for the stormwater management measures must be kept on site, including a record of all inspections and copies of maintenance-related work orders.

An "Inspection and Maintenance Check List" shall be maintained as a record of regularly scheduled inspection and maintenance items as outlined below for every year. Maintenance required and actions taken shall be recorded in a "Inspection and Maintenance Log". The funding, operation, and maintenance of all stormwater management Best Management Practices (BMPs) shall be provided by the Owner, or their appointee.

Maintenance routine and schedule: Routine inspections will be conducted monthly and thorough investigations will be conducted twice a year. Task systems include regular removal of accumulated sediments, floatables and debris, and scour inspection. Inspections will occur after every major storm event throughout construction and for the first six (6) months after construction is completed. Inspections will be conducted by a qualified person experienced in drainage design and stormwater management systems. Annual reports will be prepared detailing the status of the stormwater system and the maintenance performed. A copy of the annual report shall be provided to regulatory bodies as requested.

The owner agrees with a minimum maintenance schedule as follows:

- 1. Monthly inspection for damage or clogged drain inlets** to maintain inlet capacity.
- 2. Annual cleaning of drain inlets.** Inlets should be inspected at least twice a year. Sumps and inlets shall be cleaned once per year. All sediments shall be properly handled and disposed of in accordance with local, state and federal guidelines and regulations.
- 3. Inspection and cleaning of drainage pipes and drainage structures.** Drainage pipes and drainage structures shall be inspected twice a year and cleaned of sediment at least every (5) years or as required to maintain adequate functionality of the stormwater conveyance system. All sediments shall be properly handled and disposed of in accordance with local, state and federal guidelines and regulations.
- 4. Stormwater BMPs.** At a minimum, the basin will be inspected after every major storm event greater than 0.5", for the first six months after construction, to ensure functionality and inspect for erosion. Thereafter, inspections will occur at twice per year and after every major storm event greater than the 2- year storm event.

At least twice per year, the basin's sediment forebay and outlet structure will be cleared of accumulated sediment and trash. Sediment collected inside the basin will be removed at a minimum of once every (5) years by hand or mechanical equipment. Outlet structure should have debris removed to maintain consistent release velocities. Collected debris will be properly disposed of, in accordance with state and federal requirements, at a local facility.

Swales shall be inspected twice a year and after every major storm greater than the 2-year storm event. Removal of sediment and debris shall be occurred with the inspection as well. Regular maintenance task includes mowing, weeding, and pest control.

5. **Annual sweeping of the parking lot.** The parking lot shall be swept at least annually and on an as-needed basis.
6. **Grass Landscaping.** The grass landscaping and plantings shall be inspected after every major storm event for the two (2) months after seeding to ensure functionality. Thereafter, inspections should take place monthly and after severe storm events. Grass and mulched landscaping showing signs of wear and erosion will be re-loamed/re-seeded or re-mulched as necessary to prevent further erosion from taking place.
7. **Snow removal.** Snow shall be stored within the landscape areas onsite away from resource areas. During large storm events, snow shall be trucked off site.
8. **Road Salt and De-Icers:** No exterior storage of road salt or other de-icing chemicals are permitted at the site. The use of road salt will only be used on a limited basis during the winter months to insure safe passage of pedestrian walkways and parking areas.

Operation and Maintenance Budget Estimate:

The responsible party agrees to maintain an adequate annual budget to provide for the routine maintenance activities detailed in this document including but not limited to:

- Stormwater BMP Maintenance
- Landscape Maintenance
- Snow Plowing & Removal

INSPECTION AND MAINTENANCE CHECK LIST
North Mound, Haverhill Landfill
Old Groveland Road, Haverhill, Massachusetts
(Assessor's Parcel 776-788-27)

For Year: _____

Name of Owner:

Name of Facility:

Location:

Haverhill Landfill, Northern Mound
Old Groveland Road, Haverhill, Massachusetts
(Assessor's Parcel 776-788-27)

Inspection and Maintenance Log

Inspection No.	Date	Inspections Performed	Maintenance Actions Taken
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

*Additional Sheets shall be added as needed